

CIA/PB 131632-57

Approved For Release 2001/08/14 : CIA-RDP80-00140A0002005800010001-8

~~UNCLASSIFIED~~

SOVIET BLOC INTERNATIONAL
GEOPHYSICAL YEAR INFORMATION

MARCH 13 1959

1 OF 1

150
111
COPY

(58)
DB 131632-57

INFORMATION ON SOVIET BLOC INTERNATIONAL GEOPHYSICAL COOPERATION -- 1959

March 13, 1959

U. S. DEPARTMENT OF COMMERCE
Office of Technical Services
Washington 25, D.C.

Published Weekly
Subscription Price \$12.00 for the Series

PLEASE NOTE

This report presents unevaluated information on Soviet-Bloc activities in the International Geophysical Cooperation program from foreign-language publications as indicated in parentheses. It is published as an aid to United States Government research.

"INTERNATIONAL GEOPHYSICAL COOPERATION" PROGRAM--
SOVIET-BLOC ACTIVITIES

Table of Contents

	<u>Page</u>
I. Rockets and Artificial Earth Satellites	1
II. Meteorology	1
III. Seismology	3
IV. Glaciology	4
V. Oceanography	6
VI. Arctic and Antarctic	10

I. ROCKETS AND ARTIFICIAL EARTH SATELLITES

New Soviet Popular Science Books on Space Conquest

A number of new popular science books devoted to the conquest of space have recently appeared in the Soviet Union. Among these are: Stroyeniye Vselennoy (Structure of the Universe), by R. V. Kunitskiy; Luna (The Moon), By I. A. Parshin; and Na Rakete k Lune (By Rocket to the Moon), by V. A. Levantovskiy.

The publishing house "Znaniye" is preparing a brochure by M. G. Kroshkin, Sputnik Solnitsa (Sputnik of the Sun), for printing. This book is richly illustrated and is intended for the reading masses. ("Books Telling of the Cosmos," Moscow, Sovetskaya Aviatsiya, 17 Feb 59, p 3)

Extraordinary Meeting of Chairmanship of Slovak Academy of Sciences

CPYRGHT

CPYRGHT

"The chairmanship of the Slovak Academy of Sciences held an extraordinary meeting at which the representatives of our scientific life discussed the launching of the Soviet cosmic rocket into the area of the Moon and its orbit of the Sun. Prof Engr Jan Gonda, Corresponding Member of the Slovak Academy of Sciences, head of the Laboratory of Theoretical and Applied Mechanics of the Slovak Academy of Sciences, familiarized those present with the latest in modern rocket technology, and he highly praised the success of the Soviet scientists." ("Extraordinary Meeting of Chairmanship of Slovak Academy of Sciences"; Bratislava, Kulturny Zivot, No 2, 10 Jan 59)

II. METEOROLOGY

Equations for Pressure Field Derived

An expression for the pressure field is obtained by solving the hydrodynamical and thermodynamical equations for an ideal fluid. All processes are assumed to be adiabatic. The solutions are functions of the initial pressure field and its derivatives with respect to time. ("The Hydrodynamical Forecasting of Baric and Kinematic Fields (Short-Range Weather Forecasting)," by A. F. Lyubyuk, Moscow State University imeni M. V. Lomonosov; Moscow, Doklady Akademii Nauk SSSR, Vol 123, No 2, 11 Nov 58, pp 266-268)

New Meteorological Instruments Patented

The following patents were recently issued in the Soviet Union for meteorological instruments.

1. N. S. Varzhenevskiy, V. S. Khakhalin, B. A. Komarov, Ya. A. Mel'tser, and N. N. Khokhlova. Class 421, 19₀₁. No 115566. A Device For Remote Measurement and Recording of the Humidity of the Air.

The device incorporates a membrane of absorbent film with a firm center, a torsion spring, and a potentiometer which is included in the electric measuring circuit, fastened in the main frame. It is distinguished in that with the aim of simplifying its manufacture and for the control and reliable conversion of the transducer's readings into electrical values, the slide of the potentiometer was made in the form of an L-shaped clip positioned and fastened in a specific spot on the torsion spring. One arm of the clip is joined to the transducer by means of a rod; a brush is fastened to the other arm.

The instrument also is distinguished by having an elastic plate fastened to the main frame which serves as one of the bearings for the torsion spring. This is done to ensure the stability of the specified tension of the torsion spring for any air temperature. To ensure the constant pressure of the contact of the brush on the potentiometer winding, the brush is made in the form of bent elastic wires fastened near the base of the clip and passing freely through a hole in the end of its arm.

2. N. P. Fatayev, Class 421, 19₀₅. No 115578. Condensation Hygrometer.

A condensation hygrometer using a semiconductor thermocouple as a condenser is distinguished in that to simplify the method of determining the temperature points of dew and of ice formation, and the moment of the appearance and the phase-state of the condensate as well, a semiconductor bolometer or a microthermoresistor with a galvanic contact in the form of several insulated electrodes was fastened to the cold junction of the semiconductor thermocouple. The electrodes were switched into the tube-bridge circuit with the electric measuring instrument at the output serving in the nature of an indicator of the temperature of the dew point, and also of the moment of the appearance and phase-state of the condensate according to the shunting effect of the bolometer, or by the closing of the galvanic contact by the layer of water or ice condensed on them.

3. N. D. Bregvadze. Class 42i, 20₀₁. Device for Controlling the Sensitivity, etc., of Instruments to Infrared Radiation.

A device for controlling the sensitivity of pyranometers and other instruments to infrared radiation, distinguished in that with the aim of creating the necessary jump of temperatures, it is made in the form of a double-walled bell, the space between the walls being filled with a heat bearing liquid warmed to the required temperature which heats the pyranometer's radiation collector located in the bell's cavity.

The device also is distinguished in that the body of the bell is surrounded by a heat insulating layer for creating stable temperature conditions during the testing of the pyranometer.

4. D. I. Boyarintsev and M. M. Kulichenko. Class 42i, 20₀₁. Stratostat Meteorograph.

A stratostat meteorograph containing a vacuum chamber and a bimetallic thermometer, coupled with a multiplying pickoff, with indicators, a tape drawing mechanism, a feeding fork, two electromagnets and a power supply, distinguished in that in order to heighten the accuracy of measurements by increasing the sensitivity of the transducers by reducing the friction of the pointer on the tape, and also by increasing the scale of the recording in time, and reducing the use of electric power, the power drum of the tape-drawing mechanism and the feeding fork are joined with the cores of the corresponding electromagnets which are connected in parallel and have commutators in their circuit.

The meteorograph also is distinguished in that to raise the accuracy of the pressure measurements by means of increasing the scale along the ordinate, the pointer connected by the multiplying pickoff with the vacuum chamber is made in the form of a gang beam. (Byulleten' Izobreteniy, No 10, 1958, pp 88-89)

III. SEISMOLOGY

Theory of Underground Explosions Studied

The unusual development of an underground explosion, it is noted, is associated with the large irreversible deformations of the medium. The article presents the main results of an experimental and theoretical investigation of explosions in an elastic medium of increasing density. The experiments were carried out in sandy soil, but because of the good agreement between experimental results and the theoretical treatment, the authors conclude that the results are valid for many types of soils.

("Explosion in an Unbounded Medium of Increasing Density," by A. N. Romashov, V. N. Rodionov, and A. P. Sukhotin, Institute of Chemical Physics, Academy of Sciences USSR; Moscow, Doklady Akademii Nauk SSSR, Vol 123, No 4, 1 Dec 58, pp 627-630)

IV. GLACIOLOGY

Modern Glaciation of the Koryakskiy Mountain System

The glaciology of the Koryakskiy mountain system was studied over a 2-year period. The results of the expeditionary investigations conducted on the basis of aerial photographic surveys is presented in an article by M. I. Malykh. The region studied lay between 60 17 to 63 00 W and 166 35 to 176 30 E. Two hundred eighty-two glaciers with a total area of 179.87 square kilometers were discovered in this enormous expanse. Careful analysis of topographic maps, aerial photographs, and field observations made it possible to make certain conclusions on the glaciation of this part of the Soviet subarctic.

The article discusses the following: form of glaciation and types of glaciers, location of the snow line, ablation, and the region of modern glaciation. Three maps are included showing (1) regions of glaciation of the Koryakskiy mountain system; (2) arrangement of glaciers in the central part of the Koryakskiy mountain system; and (3) arrangement of glaciers, Ukvashvuynen Mountains.

Malykh says that the study of the glaciation of the Koryakskiy mountain system has only begun and that as yet the necessary information for a detailed analysis of its dynamics and, to the same extent, its interrelation with oroclimatic and historical factors is lacking.

It is possible, however, says Malykh, to say with certainty that the morphometric data presented, which were obtained by stereophotogrammetric methods, possess a sufficient degree of accuracy. Thus, the information on the size of the areas of the glaciers and their altitudes are not questioned and can serve as a criterion in the estimation of possible anomalies of these values in the future which can arise in a period of further glacier regression. The prospects of raising this type of question is not only extremely useful from the viewpoint of revealing the course of the historic development of glaciation, but also is necessary in studying the dynamic cycle of the numerous embryonic forms of glaciation, in which the Koryakskiy mountain system is so rich. (Modern Glaciation of the Koryakskiy Mountain System," by M. I. Malykh, Izvestiya Vsesoyuznogo Geograficheskogo Obshchestva, Vol 90, No 6, Nov-Dec 58, pp 507-520)

East German Participation in Soviet Pamir and Tien Shan Glacier Expeditions

The text of a brief report on East German participation in Soviet IGY glaciological expeditions reads as follows:

CPYRGHT

CPYRGHT

"On 23 September 1958, ten German members, including seven of our [East German] colleagues, of two glaciological expeditions returned home from Moscow. During their nearly 4-month stay in the Asiatic part of the Soviet Union, they were together with Soviet scientists and colleagues in the mountains of Pamir and Tien Shan for assignments within the framework of the IGY.

"The following were in the area of the Fedchenko Glacier in the high Pamirs: Dr Dittrich, Freiberg Mining Academy; Dipl-Engr Mitzschke, Freiberg Mining Academy; Dipl-Engr Regensburger, Geodetical Service, Leipzig; and Engr Haedicke, VEB Carl Zeiss, Jena. In repeating the survey of the greatest glacier of the world, an assignment completed in 1928 by Prof Finsterwalder, they were charged with charting the present status of the glacier on a scale of 1:50,000. On the basis of a triangulation conducted for this purpose, the survey of the area was done by means of terrestrial stereophotogrammetry. In addition to these geodetic measurements, velocity measurements at various places on the glacier were likewise conducted by photogrammetric methods.

"The second German group, which, in addition to one meteorologist and two hydrologists, consisted of Dipl-Engr Hartmann, Cottbus Advanced School for Construction Engineering; Dipl-Engr Simon, Cottbus Advanced School for Construction Engineering; and Dipl-Engr Toeppler [author of the report], Dresden Technische Hochschule, pitched its tent in the "Tugusu" glacier region in the Tien Shan Mountains, and had tasks to perform similar to those of the first group. The scales on which their survey was made were 1 : 10,000 and even 1 : 5,000.

"All measurements and all photogrammetrical work was done with instruments from VEB Carl Zeiss, Jena.

"The evaluation of the measurement results obtained will be the immediate future task of the members of the expeditions. Some time later, a detailed report will be published in this periodical." ("Back From Pamir and Tien Shan," by J Toeppler; Berlin, Vermessungstechnik, No 1, Jan 59, p 12)

V. OCEANOGRAPHY

Notes on Second Severyanka Voyage From Diary of Expedition Chief

The scientific research submarine Severyanka, pride of the All Union Scientific Research Institute of Fish Economy and Oceanography (VNIRO), made its first voyage (10 days) in the Barents Sea in December, and then its Second (4,000 mile, 24-day) voyage in the North Atlantic. Excerpts from the diary which Engr Vladimir Georgiyevich Azhazha, chief of the expedition, kept on the second voyage at the request of the editors of Izvestiya appear in that newspaper in serial form.

The material presented has for the most part been previously reported. The first installment of the diary dealt with the crew and the aims of the expedition; a sketchy description is given of the submarine's equipment and an account of the first week of the trip from Murmansk into the North Atlantic, from 29 December 1958 to 4 January 1959. The operations conducted in the region between Iceland and the Faroe Islands in cooperation with the trawler Professor Mesyatsev are described. Storm conditions greatly hampered the work, forcing its interruption several times.

Fathometer soundings were taken in the region of the Lofoten Islands along the coast of Norway.

The aims of the voyage, which were to reveal in practice the possibilities of using a submarine as a special type of scientific research craft, to develop methodical bases for using a submarine for scientific observations, and for the first time in history to conduct direct deep-water visual observations in the ocean in the interests of the fishing industry, and in this particular case herring and their medium, were successfully fulfilled. ("4,000 Miles on a Submarine;" from the diary of Engr V. G. Azhazha, chief of the second expedition aboard the Severyanka; Moscow, Izvestiya 15, 17, 18 and 19 Feb 59)

Vityaz' Visits Hawaiian Islands

The Soviet expeditionary ship Vityaz' which is conducting scientific investigations in the South Pacific under the IGY program is continuing her operations west of the Hawaiian Islands after a 6-day stay in Honolulu. While in port, Prof Filatova delivered a lecture in the University of Hawaii. ("Vityaz'" in the Hawaiian Islands"; Moscow, Pravda, 15 Feb 59, p 6)

Achievements of Soviet Oceanology

A brief review of Soviet achievements in oceanography by V. G. Bogorov, Corresponding Member of the Academy of Sciences USSR, of the Institute of Oceanology, Academy of Sciences USSR, appears in the January issue of Priroda.

Bogorov emphasizes the importance of studying the World Ocean for its theoretical and practical value, theoretical, since its surface covers almost three quarters of the Earth and practical, for the development of the fishing industry, transoceanic navigation for both ships and planes, and as a region, without data on which it is impossible to predict the weather, which is of interest to all branches of the national economy.

Research operations in 1958 were conducted in the Pacific, Indian, and Atlantic oceans, in Antarctic waters, and in many waters of the USSR.

Investigations in the Pacific Ocean were conducted in the western and central parts on the Vityaz' and in the southern part on the Ob'. These studies encompassed the enormous space from the Kuril Islands down to Antarctica. The results which were obtained have great scientific value. They give a representation of the deep circulation of the waters, the geographic zonality, the deep-water depressions and other physical, chemical, geological and biological peculiarities of the nature of the ocean.

It is known that the waters of the ocean move at a slower speed in the depths than on the surface. Substantial corrections have now been made in this connection. It was found that at depths of even several hundred meters, the water moves with a speed almost ten times greater than earlier considered.

Geographic zonality, i. e., the change in the basic characteristics of the ocean's nature at various latitudes always interested researchers. We now possess, says Bogorov, all data concerning zonally changed elements of nature; solar radiation; the direction and speed of the wind; the temperature of the air and water; the salinity and transparency of the waters; the amount of oxygen, phosphates, nitrates, carbon dioxide, and other chemical compounds; and the amount of bacteria, plankton, fish, and life on the ocean bottom and on soils. It is possible to explain the interaction of various phenomena according to these criteria, in addition to the characteristics of each zone. An example of this is the equatorial countercurrent, where water from the depths rises to the surface, changing the chemical content of the surface layer of the ocean. The enrichment of the upper water layers by nitrates and phosphates occurs, making them available for the photosynthetic activity of algae. As a result of the change in biological conditions, the amount of plankton, and then fish and bacteria, sharply increases. The abundance of life leads to a change in the transparency of the waters (physical characteristics) and the quality of the soil (geological conditions). Investigations of these interactions make it possible to evaluate all the phenomena from a theoretical viewpoint as the basis for a dialectic perception of the ocean's character.

The investigation of geographic zonality has great value in a practical sense as well. All the regions in which this rising of deep waters occurs are prospects for industrial activities, regardless of the latitude of the place.

The deep-water depressions attract the attention of naturalists not only because of the abundance of new material which aids in developing our theory on the structure of the Earth and the distribution of life in the ocean. The study of the deep-water depressions has gained special value today in connection with the proposal of foreign scientists to use these depressions for the disposal of radioactive wastes. In 1958, says Bogorov, the depressions of the southern hemisphere, where the disposal of these wastes is proposed, were studied. Special investigations of the Tonga and Kermadec Trenches showed that the aeration of these depressions reaches to the very bottom and is so rapid that through 5-10 years, the disposed radioactive matter will enter into solution, rise to the surface, and present a real threat to mankind.

Investigations of Antarctic waters gave much new material, especially from work on the Ob', which made intersecting passes over the southern regions of three oceans. Soviet scientists are now processing materials on the interaction of the waters of the Antarctic with three oceans. Since the Atlantic, Indian, and Pacific oceans are joined to each other only in the southern latitudes, then the study of Antarctic waters is a necessary part of the investigation of the World Ocean and its dynamics. These waters are of special economic interest to the Soviet Union as a base for the development of the whaling industry. The whaling fleet "Slava" is already operating there. In its last voyage the Ob' found, through its studies on the distribution of plankton in the enormous area from Australia to South America, that the plankton population extended in the form of a wide zonal belt with a gradual increase toward Antarctica.

A cooling of the waters generally occurs everywhere in the region of the Antarctic shelf. These settle on the continental slope and fill the ocean bed. These waters then spread to the North. The establishment of the boundaries of the movement of Antarctic waters is of great interest, inasmuch as it carries reserves of food into the poor tropical regions. Geological investigations made it possible to explain an interesting phenomenon in the shelf of Antarctica. On the bottom, there are two rises separated by a channel. These rises, in all probability, are moraine banks. The northern bank is connected with the rim of the glacial shelves which existed during the period of greatest glaciation in Antarctica, and the southern bank corresponds to the edge of present glaciers.

New data on the geology, hydrology, and also on primary products of the Atlantic Ocean were obtained by expeditions on the Lomonosov and Sedov in 1957.

Much other work has been done recently by Soviet oceanologists, in particular in the branch of ocean geology, which is of great value for the development of science. The study of the geosynclinal zone, especially in regions of the Aleutian, Kuril-Kamchatka, Japan, the Izu-Bonin, Mariana, Bougainville, Palau, Tonga, Kermadec, and New Hebrides deep-water depressions and on the discovery to the northwest of the Fiji Islands of the "Vityaz' Trench," necessary for compiling tectonic and bathymetric charts of the ocean and for explaining the original structure of the Earth's crust in the vast expanse of the ocean bed, was made. The maximum depths of the ocean were more accurately determined. Soil cores collected everywhere made it possible to establish the general climatic changes which our Earth has experienced in the last 10,000 years. The determination (by the seismoacoustic method) of the thickness of loose depositions showed that it (within the limits of the ocean bottom) usually did not exceed 1,000 meters.

The wide application of the separation of aqueous suspensions conducted in all the oceans produced an abundance of material on the origin of bottom depositions and made it possible to create a new branch of geology, the science of aqueous suspensions. Similar investigations had never been conducted on such scales.

Studies of shores and beaches, which revealed a regularity in the formation of sea shores and alluvium, made it possible to make a number of recommendations and prognoses in the building of ports and hydroengineering installations in the seas of the USSR and in Poland and China as well.

Broad investigations were conducted in the following fields: the dynamics of sea currents, and the displacement of waters (thus the theory and the calculation of drifting ice in the North Arctic Ocean was developed); the interaction of the ocean and the atmosphere; the dynamics of the rule for the number, behavior and distribution of fish, invertebrates and algae in connection with conditions of existence; and the biology of marine borers and the fouling of ships and hydroengineering installations. New methods and apparatus for oceanological investigations needed by the navy and the fishing industry were also developed.

Borogov says that in 1959 a study of all of the northern part of the Pacific Ocean as far as America will be made. Complex investigations in the Indian Ocean are imminent. Many scientists will be engaged in making a meridional intersection of the Atlantic Ocean on the Ob' and on the Lomonosov.

Ahead of us are the major theoretical works on the study of the regularities for the distribution and the dynamics of the physical, chemical, biological, and geological phenomena and processes of the World Ocean, which are the basic tasks of oceanology." ("Achievements of Soviet Oceanology,"

by V. G. Borogov, Corresponding Member of the Academy of Sciences USSR, Institute of Oceanology, Academy of Sciences USSR; Moscow, Priroda, No 1, Jan 59, pp 43-45)

V. ARCTIC AND ANTARCTIC

Interdepartmental Commission on the Study of the Antarctic Organized in
Academy of Sciences USSR

The Presidium of the Academy of Sciences USSR has decreed that an Interdepartmental Commission on the Study of the Antarctic (Mezhdunarodstvennaya Komissiya po Izucheniyu Antarktiki) be established under the Academy of Sciences USSR and that the Council for Antarctic Research be abolished. The new commission will be under the jurisdiction of the Bureau of the Department of Geologicogeographical Sciences.

The primary task of the commission will be to coordinate scientific research on the Antarctic and adjacent waters. The commission will act through the Soviet Antarctic Committee for activities in international organizations. ("On the organization of an Interdepartmental Commission on the Study of the Antarctic," (unsigned article); Moscow, vestnik Akademii Nauk SSSR, No 1, Jan 59, pp 123-124)

Ice Reconnaissance in Antarctic

For the past 3 years, the aviators of the Soviet Antarctic Expedition have been conducting ice reconnaissance over the Davis Sea, flying as far as 700 to 800 kilometers away from the coast. Valuable data on the ice regime of the southern part of the Indian Ocean have been obtained.

The most favorable conditions for navigation were observed in the Davis Sea from mid-January to mid-March. In January and February, there is a 60-80 mile wide zone of floating ice north of Drygalski Island. It consists of broken ice with a 3 to 6 tenths ice cover. With the help of reliable aerial reconnaissance, this zone is fairly navigable. The concentration of ice diminishes by March. In early summer, the shore ice presents a serious obstacle for ships approaching the coast; the width of the shore ice is between 12 and 17 miles, and it is up to 160 centimeters thick. In July, the edge of the floating ice moves about 120-160 miles to the north, and it remains at a distance of about 380 miles from the coast until September or October.

On the basis of Soviet aerial photography of the coast between 40 and 166 E (about one third of the whole coastline), the first reliable maps of this area are being compiled. ("In the Realm of Purgas and Winds"; Moscow, Sovetskiy Flot, 17 Jan 59)

US Scientist Leaves Antarctica With Soviet Expedition

On 30 January, the members of the Third Soviet Antarctic Expedition, who had spent 14 1/2 months in Antarctica, left Mirnyy aboard the Mikhail Kalinin on their return voyage to the USSR.

Among the homeward-bound passengers on the Mikhail Kalinin is the US meteorologist, Morton Rubin, and the Czechoslovak scientist, Antonin Mkros.

The diesel-electric ship Ob' also left Mirnyy. After escorting the Mikhail Kalinin, the Ob' will head toward Queen Maud Land, where the station Lazarev is to be organized. ("Homeward Bound!" Moscow, Vodnyy Transport, 31 Jan 59)

New Soviet Station in Antarctic

On 9 February, the Ob' reached the coast of Queen Maud Land, where it was planned to organize the new Soviet scientific station Lazarev. Because of stormy weather, it was impossible to start an exploration of the coast for several days after arrival. On 12 February, the airplanes were unloaded on the ice and the exploration of the coast began. The search for a suitable station site continued for 2 days. No rock outcrops or rocky cliffs were visible anywhere; only glaciers flowing down to the sea.

The expedition leaders decided to establish the station on a glacier. On 14 February, the Ob' cast anchor in the ice. Unloading of equipment and supplies began. A total of 900 tons of freight have to be unloaded on the glacier.

The members of the station Lazarev will be located in two prefabricated huts. Six polar scientists headed by Yu. A. Kruchinin, geographer, will remain here for the winter. While the station is being built, a group of scientists under the supervision of Prof M. G. Ravich set up a field camp on Queen Maud Land and began its research activities. ("Scientific Station Lazarev"; Moscow, Pravda, 16 Feb 59)

Soviet Interior Expedition

A sled-tractor train has left Mirnyy for the interior of the continent. Twelve polar specialists, headed by V. Chistyakov, are taking part in this expedition. The party includes the following antarctic veterans: M. Kuleshov, V. Tsvetkov, and A. Borodachev, mechanics and drivers; A. Maksimov, radio man; N. Medvedev, magnetologist; and V. Gavrilov, physician.

The train consists of three powerful over-snow vehicles called "Khar'kovchanka," specially made for the Antarctic expedition by Khar'kov machine builders. These cross-country vehicles are specially adapted for operation at altitudes of up to 4.5 kilometers above sea level and under low atmospheric pressure. The six metal sleds carry over 100 tons of freight, intended for the transcontinental expedition which will take place at the end of the year.

The train is headed for the station Komsomol'skaya, which is the support base for trains penetrating into the interior. The tractor-trucks will be parked at the station Komsomol'skaya until the beginning of the transcontinental expedition, while the men will be flown back to Mirnyy.

The train will have to pass over areas with deep cracks, loose snow, and hard sastrugi. Scientific observations will be conducted along the way. ("In the Interior of Antarctica"; Moscow, Izvestiya, 17 Feb 59)

Scientists Discover Mummified Animals

One of the most surprising discoveries in Antarctica was made by Soviet scientists in the Vestfold oasis. Numerous bodies and skeletons of seals, penguins, giant petrels, and jaegers were discovered in this "valley of death," covering a distance of over 10 kilometers along the shores of bitter-salt water lakes.

The scientists were surprised to find that a large number of these animals were well preserved mummies. The solution of the mystery was quite simple. During the winter, the corpses were well preserved because of the frost. In the summer, when the temperature at the oasis rose above freezing point, the mummification process continued because of the dry air and the complete absence of bacteria and insects.

Conditions for mummification on the banks of bitter-salt lakes were even better than on the terraces. The animals, which have been dead for hundreds, or maybe even thousands, of years, were well preserved. For example, only the eyes and some patches of fur of the seals were damaged.

Ye. S. Korotkevich, Candidate of Geographic Sciences, writes about these discoveries in Antarctica in his report, published in the Bulletin of the Soviet Antarctic Expedition, No 2, which was released several days ago. ("Mummies in the Antarctic"; Leningradskaya Pravda, 25 Dec 58)

Visit to Severnyy Polyus-7

During the recent visit of foreign and Soviet journalists to the drift station Severnyy Polyus-7 in the Arctic, Krum Losev, the press attache of the Embassy of the People's Republic of Bulgaria, asked Nikolay Belov, chief of the station, whether Severnyy Polyus-7 was maintaining scientific contact with the US drift stations. Belov replied, "unfortunately not." Severnyy Polyus-7 operates under the IGY program. Eight times a day, operational data on the weather are transmitted by radio. These data may be used by anyone who is interested in them. The US drift stations also transmit weather data, but they change the time and the wave length for every transmission, thereby making it more difficult for Soviet radio stations to receive the broadcasts. ("Among the Arctic Ice"; Moscow, Krasnaya Zvezda, 25 Jan 59)

* * *